

REMARKS

Prior to the present Office Action, claims 44-50 and 52-60 were withdrawn and claims 92-93 and 95-107 were pending. In the Office Action dated March 4, 2010, claims 92-93 and 95-107 have been rejected. By the above amendments, the Applicant has amended claims 92, 95-104 and 106-107, and cancelled claim 93. Accordingly, claims 92 and 95-107 are now pending. Favorable reconsideration is respectfully requested in view of the amended claims and the arguments set forth fully below.

Examiner Interview Summary

On July 22, 2010, the undersigned, Examiner Alexandria Bromell and Supervisory Examiner Cammy Truons conducted a telephone interview. The Applicants respectfully thank the Examiner's for their willingness to interview this case.

During this interview, the Examiners indicated that the Argument and Remarks submitted with the Applicant Initiated Interview Request Form, and further submitted in this Response for the record and convenience, obviated the rejections listed in the Office Action dated March 4, 2010.

However, further during the interview, the Examiners asserted that additional amendments may be necessary in this matter in order to obviate the current systems known to the Examiners. Specifically, the Examiner provided the example of the patent and application database search capabilities at the USPTO, where a collection of patent classes and subclasses are utilized to find other similar patents and applications. The Examiner further stated that such a system includes codes and sub-codes printed on a print version of a patent that would lead a user to other similar documents in a database system. Specifically, Examiner Bromell stated, "...what I want you to do is come up with a punch line of how your invention is different from any other way of classifying things with numbers or letter."

Since there is no formal prior art cited for this request, and no specific mention in a currently issued Office Action, the Applicant will herein address this issue by introducing an additional amendment made to the claims to overcome this rejection.

In addition to the amendments made and proposed with the Interview Agenda, the Applicants have further amended the independent claim 92 to include the limitation: "..., wherein

the data classification code links to the information in any of a plurality of media channels". The Applicants respectfully request the Examiner to consider not only the format of the codes as described and claimed in the present application, but also the way in which the codes are used or applied that makes them fundamentally different from those used in the patent search system offered by the Examiner.

As was discussed in the interview, the data classification codes of the present application connect the offline and online worlds, such that the codes function as "hyperlinks" beyond the web, and enable interactivity in traditional media – for example, connecting an article in print to related content on the internet.

However, these codes also create intelligent connections across diverse media channels, thereby aggregating related content from a plethora of media channels, including retail and/or real world events – for example, a code from an article in a magazine on scuba diving in the Maldives can also inform the user if there is a radio or TV program in the next week on that same topic, or a special offer on scuba equipment at a nearby retail shop, or an event promoting diving sites in the Indian Ocean, filterable by a user. In other words, in operation, a code or sub-code found at the end of a print article may be entered into one's device, and more than just an internet link may be returned. In the prior art as introduced by the Examiner during the interview, a code and sub-code from a patent document is entered into a patent database and reveals only additional patent documents in that particular database. **The code entered by the user in the case of the prior art does not link to a plurality of media channels.**

Following, a code such as those used by the USPTO is intended to take the user to a specific end point within the perimeters of the patent system – typically a document (a patent or application). A USPTO code will not lead to a blog, or radio program, or even a newspaper article, though any of these could be about the very same topic.

When a user sends a data classification code, there is no guarantee as to whether the end point might be either online or in the real world – it could equally be a link to an online article or an alert for an upcoming TV program or a forthcoming event or a retail promotion – all relating to that topic.

Furthermore, the structure or framework used for the USPTO codes is inconsistent. It appears that the code can vary depending on the number of dots after a given subclass - which also can vary:

357.01 --With position indicating
403 -----With circular array of antennas

Apparently the use of one or more dots is to *"indicate the hierarchical position of that subclass - ie: indicating that each subclass forms a subdivision of the nearest group above it having one dot less."* *"The hierarchy among subclasses is determined solely by the number of dots preceding their titles, and not by the numbering of the subclasses."*

"Some subclasses can contain decimal and alpha modifiers (for example 427/2.31 or 427/3A)."

The hierarchical structure is clearly different for subclasses than that for classes, and employs different rules and syntax.

"To search for International Classification G06F 19/00, you must enter the classification with a zero ("0") in place of the space -- i.e., without any embedded spaces -- as follows: ICL/G06F019/00. Formatting your search in this field in any other way will result in an error."

"To limit a search to Design Patents, search "4" in the APT field and AND with other criteria. E.g., APT/4 AND TTL/toy."

As stated previously the data classification codes in the present application are totally uniform and consistent throughout, and therefore there is a clear difference in the structure and methodology employed for classification.

Rejections Under 35 U.S.C. §103

Claims 92, 96, 99, 103-104 and 107 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,438,533 to Spackman et al. (hereinafter Spackman), in view of U.S. Patent No. 7,620,622 to Larsson et al. (hereinafter Larsson). The Applicant respectfully disagrees with this rejection.

As discussed during the interview, claim 92 has been amended in the proposed amendment to clarify the features of the codes, sub-codes and subject terms. Claim 92 has been amended so that there is no confusion about what "code" is meant in various portions of the claim by referring to "data classification code" and "sub-code". Claim 92 has also been amended to

more clearly define the relationship between the data classification code, the alpha-numeric sub-codes, the subject terms and the information based on the disclosure on page 13, line 1 to page 14, line 10 of the specification. The Applicants have also amended claim 92 to include the subject matter of claim 93 to further clarify the difference over ACM, specifically by the amendment to recite: "a data classification code comprising unlimited sub-codes provide for unrestricted levels in the hierarchical structure".

In the remainder of this Remarks section, the Applicants will pull specific portions of the Examiner's rejection from the current Office Action, and respond to each portion individually.

wherein the database server stores codes, information, and links information stored or existing outside of the database server (i.e. The resulting set of electronic records comprises a database of records. The alphanumeric codes used in the patient/medical database are the same as the alphanumeric codes of the corresponding concepts of the terminology knowledge base. The expressions used in the database of

patient records use the same description language as the expressions used to define concepts in the terminology knowledge base, column 8, lines 59 - 65),

The claim actually reads, with bolded highlights:

“...the database server stores codes, information, and links **to internet-based** information stored or existing outside of the database server **associated with said codes**”.

Spackman is making the specific point that the alphanumeric codes used in the patient/medical database are the same as the terminology knowledge base. Just as the expressions used in the two databases use the same description language. The present application does not make any claim (or mention) about the alphanumeric codes in two separate databases being the same.

There is in any case a fundamental difference between alphanumeric codes and expressions that are shared between two connected databases [as with Spackman], and links from

the database to related information that's exists outside the database associated with alphanumeric codes [Present Application claim].

The alphanumeric codes in the present application are used as springboards, which enable any alphanumeric code to be mapped by the system to specific topics, and said topics contain links to internet-based information (ie: web sites) - as illustrated below:

<u>Code</u>	<u>Topics</u>	<u>Link to information</u>
2583	= Water sports > Scuba diving	= http://www.cdninfo.net/news/safety/s100515a.html

The key point is that the codes themselves do NOT directly link to internet-based information (ie: web sites) – that would be the equivalent to a URL shortening service (such as tinyurl.com or bit.ly) – as this would require billions of codes for all the web sites/pages. Each code represents a topic and there is a list of constantly changing links associated with each topic - while the code itself never needs to change.

wherein each code comprises a plurality of alpha - numeric sub - codes in a hierarchical structure (i.e. alphanumeric codes are used with hierarchical data structures, column 2, lines 28 - 37), and wherein the codes are used for classifying information according to subject terms by encoding subject terms with codes (i.e. medical terms and codes are classified, column 1, lines 57 – 64, terms are encoded into one group, column 2, lines 39 - 51);

The importance of “each code comprising a plurality of alphanumeric sub-codes in a hierarchical structure” in the present application is to provide a contextual framework for every topic (excepting those on the first/highest level), such that the system can understand (and consequently disambiguate) the difference between, for example, the term Jaguar in the following context:

Motoring > Manufacturers > **Jaguar** (code 741536)
as opposed to this context:

Wildlife > Cats > **Jaguar** (code 823149)

This aspect has been emphasised in the claims by referring to “all the subject terms are encoded with the alpha-numeric sub-codes”.

The core argument here is that Spackman embodies an entirely different approach whereby only the medical concepts have alphanumeric codes (see excerpts below) – but other terms such as the “role relationships”, “attributes” and “operators” which further define a concept do not have alphanumeric codes:

“To create the terminology knowledge base, human modellers represent medical concepts... The modellers assign an alphanumeric code to each concept. The resultant set of medical concepts comprises the terminology knowledge base” (Spackman, column 7, lines 1-8). “Every concept has an alphanumeric code. The code is an arbitrary identifier used to represent the concept in a repository of patient records and in the knowledge base.” (Spackman, column 6, line 65).

If you examine Fig. 3, you will see that the ‘User’ 105 sends a ‘Query’ 110 to a ‘Query Translator’ 115. The ‘Translated Query’ 130 is sent to the ‘Classifier’ 120 then to the ‘Inference Engine’ 125 and ‘Records Analyzer’ 150 and then onto an ‘Encoded Records Database’ 140 which returns any matching records back to the ‘Records Analyzer’ which performs a ‘subsumption check’ 155 and determines whether the defined ‘Patient Record’ 136 matches the translated query. The ‘Inference Engine’ 125 analyzes the records in the ‘Encoded Records Database’ 140 based on input from the ‘Translated Query’ 130 and input from the ‘Knowledge Base’ 145. The ‘Retrieved Records’ 160 are then sent to the ‘User’. (Refer also to column 7, lines 30-56 & column 8, lines 36-48).

This sequence is completely different from the present application where the user sends a code to the system which returns any matching information to the user. Firstly it is a code which the system understands as the query – which is not the same query method as in Spackman’s patent, for example “Records of Patients with Bacterial Effusion” (Fig. 5, 610). That is not an alphanumeric code.

Secondly the code, which forms the query in the present application, does not need to be ‘translated’ since the system does not mandate that “the query must be translated and expressed according to [the] description language” (column 7, line 32-33) (Fig. 3, 116).

Nor does the hierarchy containing the subject terms require additional “role restrictions” “attributes” and/or “operators” to further define the term.

Incidentally, Spackman's patent states that “the code is an arbitrary identifier” (see extract above) and this implies that the coding is not based on clusters or any semantic grouping of subject terms, as per the present application. Certainly the coding methodology used in the present

application is anything but arbitrary, since the data classification codes are a corollary of the semantic clustering of subject term groups.

a network receiver, wherein the network receiver receives a code from a user's communication device via a wired or wireless network (i.e. a query manager receives queries and translates them into a format which can be processed by the system, column 3, lines 66 – 67);

In the present application, the user submits the query as an alphanumeric code, whereas it is evident from Fig.5, 6 & 7 that in Spackman's patent a user submits a text query in the form "Records of patients with". There is neither any mention in his description or claims regarding "the network receiver receiving a code"

In addition Spackman's patent states "In operation, a query manager receives a user query and translates the query into a description language." (column 4, lines 27-28) and "the query must be translated and expressed according to description language" (column 7, lines 32-33). "Queries are constructed using a standard description language" (column 3-4, lines 67-1). Further "The description language of the invention is based upon a set of four operators" (column 7, lines 11-12) and "the set of operators is comprised of the following four: top, bottom, conjunction, and exists restriction" (column 7, lines 20-21).

The above point is further detailed in Spackman's description: "The user may enter the query in one of a number of formats, which may include natural language and do not form part of the present invention" (column 10, lines 15-18).

In the present application, the alphanumeric code is received and processed by the system in exactly that format – it does not need to be translated "into a format processible by the system" (column 3, line 67).

a set of executable software code stored on the host system such that when the set of executable software code is executed by a processor included in the host systems, the code received by the user is recognized as a request for information, is parsed, and information is retrieved from one or more databases or servers by using the links associated with the code received by the user (i.e. query is submitted to identify which concepts in the records are similar to terms in the terminology knowledge base, column 10, lines 53 - 63); and

Spackman does not explicitly teach that the database server stores codes, information, and links to internet based information stored or existing outside of the database server as claimed.

However, Larsson teaches that if users desire to access information records, some records may be accessed over servers in the form of html pages, where the web pages contain links to data records (column 2, lines 43 - 51). In addition, links to data outside the system may be created using a spider, so that after data is extracted, a corresponding URL may be indexed and stored for retrieval (column 4, lines 48 - 67).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Spackman with the teachings of Larsson in order to create links to data outside the system so that a URL may be indexed and stored for retrieval (column 4, lines 48 - 67).

The examiner has omitted the last part of the claim (in bold) above “... links to internet based information stored or existing outside of the database server **associated with said codes.**”

Larsson’s patent relates “... more specifically to a method and system for indexing information, searching information and providing search results responsive to a query” (column 1, lines 10-12). His patent incidentally does not address in any shape or form the focus of the present application, namely using codes to access web-based information.

Therefore, when the examiner states above “*Larsson teaches that if users desire to access information records, some records may be accessed over servers in the form of html pages, where the web pages contain links to data records*” this is understood to mean that “once a page has been retrieved, the browser programs can provide access to other pages or records responsive to a user “clicking” on hyperlinks in previously retrieved Web pages” (column 2, lines 64-67). This is obvious to one of ordinary skill in the art of using the web: “The user selects the web pages to be displayed by clicking on the corresponding hyperlink” (column 1, lines 29-31). “Such hyperlinks provide an automated way to enter the URL of another page, and to retrieve that page” (column 3, lines 1-2). ”The pages can contain or link to data records including as content, plain textual information, or more complex digitally encoded multimedia content, ...” (column 2, lines 47-49).

None of this is in any way related to the claim of “storing codes, information and links to internet based information stored or existing outside of the database server associated with said codes.” The present application does not state that “web pages contain links to other data records” – the system does not use web pages as the jumping off point, but rather alphanumeric codes form the springboard to access ‘other data records’.

The examiner also states “*In addition, links to data outside the system may be created using a spider, so that after data is extracted, a corresponding URL may be indexed and stored for retrieval.*” The present application does not make any claim relating to this aspect of using spiders to create links to data outside the system. In reality, the function of correlating a web page to the relevant code will be performed by the author, so that all data is tagged with the appropriate content ID, that is exactly the same as the data classification code, at source (since machine software is still not sufficiently advanced or intelligent enough to understand both the content **and context** of an article, picture or video as well as a human does).

In sum, the present application is not obvious in light of Spackman/Larsson as they don't teach nor make obvious the crux of the present application – that codes are designed to be used as links where such hyperlinks do not currently exist at all (for example, in the print editions of newspapers and magazines, in retail shops, etc).

The independent claim 92 is directed to a host system for providing information stored in electronic or other form, the system comprising a database server, wherein the database server stores data classification codes, information and links to internet based information stored or

existing outside of the database server associated with said data classification codes, wherein each data classification code comprises a plurality of unlimited alpha-numeric sub-codes providing for unrestricted levels in a hierarchical structure, each alpha-numeric sub-code representing a particular subject term, and each subject term corresponding to a definition or description of either a constituent part or the whole of the information such that the information is classified into one or more subject terms, and all the subject terms are encoded with the alpha-numeric sub-codes, a network receiver, wherein the network receiver receives a data classification code from a user's communications device via a wired or wireless network, a set of executable software code stored on the host system such that when the set of executable software code is executed by a processor included in the host systems, the data classification code received from the user is recognized as a request for information, is parsed, and information is retrieved from one or more external databases or servers by using the links associated with the data classification code received from the user, wherein the data classification code links to the information in any of a plurality of media channels, and a transmitter, wherein the retrieved information is transmitted via the wired or wireless network to the user's communications device over a network, wherein a data classification code comprising unlimited sub-codes provide for unrestricted levels in the hierarchical structure. As discussed above, neither Spackman, Larsson, nor their combination teach the limitations set forth in the independent claim 92. Accordingly, the independent claim 92 is allowable over the teachings of Spackman, Larsson and their combination.

Claims 96, 99, 103-104 and 107 are dependent upon the independent claim 92. As discussed above, the independent claim 92 is allowable over the teachings of Spackman, Larsson and their combination. Accordingly, claims 96, 99, 103-104 and 107 are also allowable as being dependent upon an allowable base claim.

Claims 95, 97-98, 100-102 and 105-106 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Spackman in view of Larsson, and further in view of "the ACM computing classification system (1998)", December 1998, pages 1-30 (hereinafter ACM).

Claims 95, 97-98, 100-102 and 105-106 are dependent upon the independent claim 92. As discussed above, the independent claim 92 is allowable over the teachings of Spackman and Larsson. Accordingly, claims 95, 97-98, 100-102 and 105-106 are also allowable as being dependent upon an allowable base claim. Claim 93 has been cancelled.

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Claim 108 has been added to include an additional feature and is dependent upon the allowable claim 92. Accordingly, claim 108 is allowable as being dependent upon an allowable base claim.

Conclusion

For these reasons, Applicant respectfully submits that all of the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

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A handwritten signature in cursive script, reading "Christopher M. Scherer", is written over a horizontal line.

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